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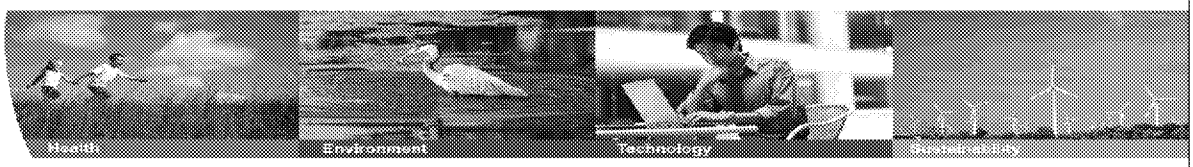

Lower Passaic River
Upper 9-Mile Feasibility Study

EPA/CPG Meeting

January 4, 2018

Key Items for Discussion Today

- Confirm overall scope and approach for Phase 1 Upper 9-Mile Interim Remedy (IR) for Source Control
- Finalize FS process
  - Scope of deliverables
- Finalize RAOs
- Identify Phase 1 IR remedy evaluation
  - CPG's proposed alternatives and evaluation approach
  - Discussion of approach
- Define application of models in the FS
  - General agreement on approach, finalize details at subsequent meeting

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Proposed Components of the Phase 1 Upper 9-Mile Interim Remedy (IR)

- Active remediation (dredging, capping and enhanced natural recovery) of approximately 80 acres from RM 8.3 to RM 14.7
- RALs of 300 ng/kg 2,3,7,8-TCDD and 1 mg/kg total PCBs
- A Pre-Design Investigation (PDI) to finalize the Phase 1 remedial footprint and assess the use of flexible RALs
- Remedy performance criteria and thresholds, supported by a structured baseline and long-term monitoring program, to determine whether additional actions are required or a final ROD can be issued
- Coordination with the Lower 8-Mile remedial action
- Assessment of combined remedy protectiveness to be assessed over the entire 17.4-mile LPRSA

Completion of the Upper 9-Mile FS

- Streamlined approach presented in 11/27/17 memo:
  - Collaboration meetings will be held to discuss and agree on key FS elements
  - Summary memoranda will be submitted to EPA to memorialize decisions, in lieu of formal technical memoranda
  - EPA comments on the summary memoranda will be addressed in draft FS

Completion of the Upper 9-Mile FS

- FS Deliverables defined in the 11/27/17 memo:
  - Summary memoranda to memorialize collaboration meetings
  - Draft FS
    - Q3 2018
    - Incorporates FS scope elements resolved in collaboration meetings
    - Includes adaptive management and performance monitoring frameworks
  - Final FS
    - Q1 2019
    - EPA/CPG meetings as needed to work through comments

Completion of the Upper 9-Mile FS

- Discussion
  - Is the streamlined approach to the Upper 9-Mile FS process acceptable?
  - Will the Direction Letter reflect the revised approach for FS?
  - How can CPG support EPA discussions with CSTAG, NRRB, and Partner Agencies?

Upper 9-Mile RAOs

- Provided by EPA to CPG in 7/17 email
- Minor modifications
  - Combined ecological risk in sediments and surface water into a single RAO
  - Focused contaminant migration RAO on flux from the upper 9 miles
- Revised RAOs presented to EPA at October EPA/CPG meeting

Upper 9-Mile RAOs

- **Human Health - Fish and Crab Consumption:** Reduce cancer risks and noncancer health hazards for people eating fish and crab by reducing the concentrations of COCs in the sediments and surface water of the Lower Passaic River.
- **Human Health - Direct Contact:** Reduce cancer risks and noncancer health hazards to people who come into direct contact with sediment by reducing concentrations of COCs in the sediments of the Lower Passaic River.
- **Ecological:** Reduce the risks to ecological receptors by reducing the concentrations of COCs in the sediments and surface water of the Lower Passaic River.
- **Contaminant Migration:** Reduce the migration of COC-contaminated sediments from the Upper 9-miles of the Lower Passaic River to the Lower 8-miles, Newark Bay and the New York-New Jersey Harbor Estuary.

Upper 9-Mile RAOs

- Discussion - Are the October proposed RAOs for the Upper 9-Mile FS acceptable?

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Remedial Alternatives

As presented in the 11/27/17 memo, a no action and a targeted remedial action will be evaluated:

1. Lower 8-mile Remedy, no action in upper 9 miles
2. Lower 8-mile Remedy, Targeted Cap and Dredge in upper 9 miles
   A. RALs: 300 ppt 2,3,7,8-TCDD and 1 ppm PCBs
   B. Impact of uncertainty in the remedial footprint will be evaluated using three alternative footprints. For example:
      i. CS37 - 83 acres
      ii. CSxx - 7x acres
      iii. CSxx - 9x acres

Remedial Alternatives

- Discussion – Are the proposed alternatives acceptable to EPA to support the IR evaluation?

Modeling Approach for the Upper 9-Mile FS

- FS will include model projections to assess long-term effectiveness (comparative basis)
- CPG will apply HST and CFT models
- Remedy benefit will be evaluated based on scaled risk reduction
- Projection runs will include the Lower 8-Mile remedy, as specified by EPA

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Modeling Issues for the Upper 9-Mile FS

- Finalization of CFT calibration
- Selection of alternate CS maps
- Approach to identifying target areas with surface concentrations above RALs, elevated subsurface concentrations, and potential for erosion
- Need for scenario-specific HST/OC runs
- Details of model implementation
  - Resuspension
  - Post-remedy concentrations
  - Engineering assumptions (sequencing, duration)
- Model sensitivity analysis

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Proposed Collaboration Meetings

Topic	Attendees	Suggested Date
Engineering assumptions Modeling approach	FS Team Modeling Team	Feb 8
Remedial alternatives evaluation metrics (e.g., model output, cost tables) Technology screening	FS Team	Mar 8